| Work Orde July-09-13 11:3 | | | 2 | | *1 | N4 | 202* | | | | | | | Page 1 |
|------------------------------------------------|---------|----------|--------------------------------------------------------------|----------------------------|----------------------|-----------|--------------------------|------------|--------------|---------------|------------|---------------|------------------|------------------------------------------|
| Item ID: Revision ID: Item Name: | D2022-1 | 103 | | A | Accept | | *N900 | 040 | 100 |)* | Setup | Start Stop | *N: *N | S1* |
| Start Date: Required Date: Reference: | 7/09/13 | | art Qty: 30.00 eq'd Qty: 30.00 | *30* *30* | | | Cust Item I Customer: | D: | | | | | | |
| Approvals: | | | MLJ | Date: 13 ~ 67-17. Date: | Tooling: SPC (Y/N |): | | ite: | | | Run | Start Stop | | R1* R2* |
| Sequence ID/ Work Center II | D | • | eration scription | | Set Up Run H | | Tool ID | Tool # | Plan Code | Accept Qty | t Re Qt | • | Reject Number | Insp. Stamp |
| Draw Nbr | | Revision | ı Nbr | | | | | | | | | | | |
| D2022 | | Rev | | | | | | | | | | | | - d- |
| *100 *100* Hardinge Hardinge CNC Lath | e Small | | Memo Note:.323" (1-Turn as p FOLIO REV DWG REV: 2-Deburr as | er folio FA207 & dwg 7: | 0.00 | OAS AS | , 13/07/2 | <u>'</u> o | | 30 | | Ø | | |
| 110 *110* QC Quality Control | | QC | 2- Inspect parts off π Memo | nachine FAI/FAIB | 0.00 | 0 | S 03,00- | 1/20 | | 30 | | Ø | | |

| DQA: | | | Date: | | | | | | | | | | TO AC |
|-------------------------|----------|------------|------------|----------|----------|------------------------------|-----|----------|----------------------------|----|--------------|---------------|--------------------|
| | | 1 | | | | WORK ORDER NON- | -CC | ONFO | RMANCE / UPDATE | | | _ | AEROSPACE |
| QA Closed: | | 1 | Date: | | | | | | | W | ork Order up | date only | |
| Work Orde | er: | 1 | | | | DISPOSITION | | | AGAINST | DE | PARTMENT, | /PROCESS | |
| | | + | | · | | Rework | | | Skid-tube Crosstube | Г | 1 | Water Jet | Engineering |
| Part N | No. | ! | | | | Scrap | | | Machining Small Fab | | Pro | d. Eng. Coor. | Quality |
| | - | | | | | Use-as-is | | | noforming Finishing | | 4 | re/Packaging | Other |
| NCR I | No | | | | | Suspected Unapproved | | | Large Fab Composite | | | Supplier | |
| | | | | , | | | | | | | | | |
| Root | | • | , | | Desci | ription of work order update | i | nitial | Action | | Sign & | _ | |
| Cause | \dashv | Date | Step | Qty | | or non-conformance | Ch | ief Eng | Description | | Date | Verification | QC Inspector |
| Design | Н | | | | | | | | | | | | |
| Doc/Data | Н | 1 | | : | | | | | | | | | |
| Equip/Tooling | Н | | | | | | | | | | | | |
| Handling/Pre | Н | • | | | | | | | | | : | | |
| Material | Н | | | | | | | | | | | | |
| Operator | \vdash | | | | | | | | | | | | |
| Offset/Setup Process | Н | | | | | | | | | | | | |
| Supplier | Н | : | | | | | | | | | | | |
| Training | Н | | | | | | | • | | | | | |
| Transport | \sqcap | | | | | | | | | | | | |
| Unapproved | Н | | | | | | | | | | | | |
| | | · · | | . | | | FAI | ULT CA | TEGORY | | • | | |
| Landi | ng G | ear | | | | General | | | | | | ^ | |
| | | Bending | | | | Bend | | Folio/F | Program | | Outside Dim | ensions | Pressure/Forced |
| | | Centre No | ot Concer | ntric | | BOM/Route | | Grain | | | Over/Under | tolerance | Set-up |
| | | Cracks | | | | Broken/Damage/Defect | | Hardwa | are | | Part Incorre | ct | Temperature/Cure |
| | Ш | Crimp/Kir | nk/Ripple | /Wave | | Burrs | | Inspect | ion Incomplete/Unqualified | | Part Lost/Mi | | Weld |
| | Ш | Cuffs , | | | | Contamination | | Instruct | tions Incomplete/Unclear | | Part Moved | | Wrong Stock Pulled |
| | _ | Crushing | | | <u> </u> | Countersink | | Misalig | gned/off center | | Positioned V | | |
| | - | Heat Trea | | | <u> </u> | Cut Too Short | L | Mislabe | eled | L | Power Loss/ | Surge | Other |
| | - | Inspection | • | Tube | | Drawing | _ | Misrea | | | | | |
| | - | Marks/Ch | | | <u> </u> | Drill Holes | _ | Off-set | | | | | |
| | - | Turning \$ | | | | Finish | | 4 | Calibration | | | | |
| | | Wave/Tw | ist in Tub | oe - | | Fit/Function | | Out of | Sequence | | | | |

.*

H:/FORMS/Quality Assurance\approved QA/NCRWO RevH

| Work Order ID 104202 July-09-13 11:39:58 AM | | | | | Page 2 | | | | | | |
|----------------------------------------------|---------------------|-------------------------------------------------|--------------------|----------------------|---------------------------|--------------|--------------|---------------|--------------------|------------------|----------------|
| Revision ID: | D2022-103 Spacer | | | Accept | *N900 | 040 ′ | 100 |)* s | etup Start Stop | 1/1 | S1* S2* |
| | 7/09/13 | Start Qty: 30.00 Req'd Qty: 30.00 | *30* *30* | | Cust Item II Customer: | D: | | | | T.V. | |
| Approvals: | Process Pla | ın: | Date: | Tooling: | Da | te: | | R | un Start | 171 | R1* |
| | | | Date: | SPC (Y/N): | Da | te: | | | Stop | *N | R2* |
| Sequence ID/ Work Center II | D | Operation Description | | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
| 120 | | QC8- Inspect parts - seco | ond check | 0.00 | | | | _ | -/ | | |
| *120* QC Quality Control | | Мето | | 0.00 | 13-7-2 | . (| | Ze | <u> </u> | | |
| 130 | | Identify as per dwg & Sto | ock Location: | 5J 0.00 | | | | 7 | | | \sim |
| *130* Packaging Packaging | | Memo | | 0.00 | | | | <i>3</i> 01 | · | | 13-7- |
| 140 | | QC21- Final Inspection - | Work Order Release | 0.00 | | | | | 13 | hla | u) 4A |
| *14 0 * | | Memo | | 0.00 | | | | | _! / | | |

Quality Control

pl/3-01-23

| DQA: | | <u>i</u> | Date: | | | | | | | | | | | | |
|---------------|---------------|-------------|------------|-------|-------------|------------------------------|----------|-----------|--------------------|-----------|-----------|---------------|---------------|----------|--------------------|
| | | | | | | WORK ORDER NON | -CC | ONFO | RMANCE / UF | | | | | | AEROSPACE |
| QA Closed: | | | Date: | | | | | | | | Wo | ork Order up | date only | | |
| Work Orde | r: | | | | | DISPOSITION | | | | AGAINST | DE | PARTMENT | /PROCESS | | |
| | _ | | | | - | Rework | 1 | | Skid-tube | Crosstube | \neg | | Water Jet | | Engineering |
| Part N | lo. | 1 | | | | Scrap | 1 | 1 | Machining | Small Fab | \exists | Pro | d. Eng. Coor. | - | Quality |
| | | 1 | | | | Use-as-is | 1 | | noforming | Finishing | | | re/Packaging | _ | Other |
| NCR N | lo | 1 | | | | Suspected Unapproved | 1 1 | | Large Fab | Composite | | | Supplier | _ | |
| | | 1 | | | | | | | | • | | | | | |
| Root | | | | | Desci | ription of work order update | | nitial | Acti | ion | | Sign & | | | |
| Cause | | Date | Step | Qty | | or non-conformance | Ch | ief Eng | Descri | iption | | Date | Verification | n | QC Inspector |
| Design | _ | | | | | | | | | | | | | | |
| Doc/Data | _ | i | | | | | | | | | | | | | |
| Equip/Tooling | _ | i | | | | | | | | | | | | | |
| Handling/Pre | _ | | | | | | | | | | | | | | |
| Material | | | | | | | | | | | 1 | | | | |
| Operator | _ | 1 | | | | | | | | | | | | | |
| Offset/Setup | | | | | | | | | | | | | | | |
| Process | | Ċ | | | | | | | | | | | | | |
| Supplier | | | | | | | | | | | | | | | |
| Training | | | | | | | 1 | | | | | | | | |
| Transport | _ | | | | | | | | | | | | | | |
| Unapproved | | | | | | | | | | | | | | | |
| | | | | | | | FA | ULT CA | TEGORY | | | | | | |
| Landir [| $\overline{}$ | | | | _ | General | | 1 | _ | 1 | | Ì | | | 1 |
| } | _ | ending | | | | Bend | <u></u> | 1 | Program | | | Outside Dim | | - | Pressure/Forced |
| | | | t Concer | ntric | - | BOM/Route | <u> </u> | Grain | | · | \vdash | Over/Under | | <u> </u> | Set-up |
| | | racks | | | - | Broken/Damage/Defect | <u> </u> | Hardwa | | | \vdash | Part Incorred | | \vdash | Temperature/Cure |
| <u> </u> | _ | | k/Ripple | /Wave | - | Burrs | <u> </u> | 1 | ion Incomplete/Un | | _ | Part Lost/Mi | ssing | _ | Weld |
| | _ | uffs | | | - | Contamination | - | 1 | tions Incomplete/U | Inclear | \vdash | Part Moved | | L | Wrong Stock Pulled |
| | | rushing | | | | Countersink | <u> </u> | 1 1 | gned/off center | | | Positioned V | - | _ | 1 |
| | _ | eat Trea | | | <u> </u> | Cut Too Short | <u></u> | Mislabe | | | Ш | Power Loss/ | Surge | <u></u> | Other |
| | _ | | Strip in | rube | <u> </u> | Drawing | _ | Misrea | | | | | | | |
| | _ | 1arks/Ch | | | <u> </u> | Drill Holes | - | Off-set | | | | - | | | |
| | | _ | equence | | <u> </u> | Finish | — | 4 | Calibration | | | | | | |
| | IΛ | /ave/Tw | ist in Tub |)e | | Fit/Function | 1 | IOut of 9 | Seguence | | | | | | |

H:/FORMS/Quality Assurance\approved QA/NCRWO RevH

Picklist Print

July-09-13 11:39:58 AM

Work Order ID:

104202

Parent Item:

D2022-103

Parent Item Name:

Spacer

Start Date: 7/09/13

Required Date: 7/09/13

Page 1

Start Qty: 30.00

Required Qty: 30.00

Comments:

IPP REV:A 11.05.11 new DD verf:JLM

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| M6061T6R0.750 | | Purchased | No | | | 100 | f | 60.4810 | 0.0189 | 0.596841 | | | |
| 6061-T6 Round Bar .750" | | | | | | | | | V | <u> </u> | | | |

Loc Code Location Loc Qty MAT 60.481 **≠** 125552 60.481

| DQA: | <u> </u> | Date: | | | | | | | | | | | | TOAC |
|---------------|----------|--------------|--------|-----------------------------------------------|----------------------------|----------|---------|--------------------|-------------|-----------------|--------------------|---------------|---|--------------------|
| OA Classide | 1 1 | Data | | | WORK ORDER NON- | -CC | ONFO | RMANCE / UF | | 144- | 1.0.1 | adaka asil s | | AEROSPACE |
| QA Closed: | | Date: | | | | _ | | | | Wor | k Order up | date only | | |
| Work Orde | ır: | | | | DISPOSITION | | | | AGAINST | DEP | ARTMENT | /PROCESS | | |
| | - | | | _ | Rework | | | Skid-tube | Crosstube | | | Water Jet | | Engineering |
| Part N | lo. | | | | Scrap | | | Machining | Small Fab | | Pro | d. Eng. Coor. | | Quality |
| | 1 | | | _ | Use-as-is | | Therr | noforming | Finishing | | Rec/Stor | re/Packaging | | Other |
| NCR N | lo | | | - | Suspected Unapproved |] | | Large Fab | Composite [| | | Supplier | | |
| Root | | | | Descri | ption of work order update | | Initial | Acti | ion | Т | Sign & | | | |
| Cause | Date | Step | Qty | | or non-conformance | Ch | ief Eng | Descr | iption | | Date | Verification | n | QC Inspector |
| Design | | | | | | | | | | | | | | |
| Doc/Data | | | | | | | | | | | | • | | |
| Equip/Tooling | | | | | | | | | | | | | | |
| Handling/Pre | | | | | | | | | | l | | | | |
| Material | | | | | | 1 | | | | l | | | | |
| Operator | | | | | | İ | | | | | | | | |
| Offset/Setup | | | | | | | | | | | | | | |
| Process | | | | | | | | | | | | | | · |
| Supplier | | | | | | | | | | | | | | |
| Training | | | | | | | | | | | | | | |
| Transport | | | | | | | | | | | : | | | |
| Unapproved | | | | | | | | | | | | | | |
| | | | | | | FAI | ULT CA | TEGORY | | | | | | |
| Landir | ng Gear | | | | General | _ | 3 | | | | | | | • |
| 1 | Bendin | - | | \vdash | Bend | | 4 | Program | | | Outside Dim | ensions | | Pressure/Forced |
| 1 | Centre | Not Conce | ntric | - | BOM/Route | | Grain | | ļ | | Over/Under | tolerance | | Set-up |
| , | Cracks | | | | Broken/Damage/Defect | <u></u> | Hardwa | are | | LJ ^F | art Incorrec | ct | | Temperature/Cure |
| ļ | | Kink/Ripple | e/Wave | | Burrs | <u> </u> | Inspect | ion Incomplete/Un | qualified | | art Lost/Mi | ssing | | Weld |
| | Cuffs | | | \vdash | Contamination | _ | 4 | tions Incomplete/U | Inclear | ∐f | art Moved | | | Wrong Stock Pulled |
| | Crushin | 7 | | - | Countersink | | 1 | gned/off center | | Щ ^г | ositioned V | Vrong | | , |
| | Heat Tr | | | | Cut Too Short | <u></u> | Mislabe | eled | Į | ∐ F | ower Loss/ | Surge | | Other |
| | | ion Strip in | 1 Tube | _ <u> </u> | Drawing | | Misrea | d | | _ | - - | | | |
| | Marks/ | Chatter | | | Drill Holes | | Off-set | | | | | | | |
| | Turning | Sequence | 2 | | Finish | | Out of | Calibration | | _ | | | | |
|] | Wave/1 | wist in Tul | he | - 1 - 1: | Fit/Function | 1 | Out of | Saguanca | | _ | | | | |

| DART AEROSPACE LTD | Work Order: 104202 |
|----------------------------|------------------------|
| Description: Spacer | Part Number: D2022-103 |
| Inspection Dwg: D2022 Rev: | Page 1 of 1 |

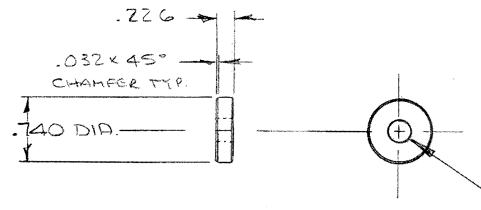
FIRST ARTICLE INSPECTION CHECKLIST

| X First Article Prototype | | | | | | | | | | | | |
|---------------------------|---------------|---------------------|--------|--------|-------------------------|----------|--|--|--|--|--|--|
| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments | | | | | | |
| 0.740 | +/-0.010 | .740 | 7 | | FK-04 | Ven. | | | | | | |
| 0.032 x 45° | +/-0.05° | ,740 032×45° | 7 | | n | 4 | | | | | | |
| 0.226 | +/-0.010 | .227 | 7 | | 'n | 4 | | | | | | |
| Ø0.323 | +0.006/-0.001 | ،323 | | | (r | n | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| **** | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| · | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | i | | | | | | | |
| · | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |
| | | | | | | | | | | | | |

Measured by: 44 | Audited by: Prototype Approval: N/A

Date: 3/07/20 Date: /3-7-21 Date: N/A

| Rev | Date | Change | Revised by | Approved |
|-----|----------|-----------|-------------|----------|
| A | 06.07.07 | New Issue | KJ/JLM | B |
| | | | | |



104202MJ 13-07-12

DRILL F (-257) DIA IN -101 DRILL P (-323) DIA IN -103

D2022-101

MAT'L: ALUMINUM 6061-T6 (00-A-225/8)

(See Vigo

| | | * | | | | | | 0. | 2022-10 | 3 | 2600 | ER 5/16 | ALUM 6061-TG | 8/025-0-20 |
|---------------------|----|------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|---------------------------------------|----------------------------------------------------|---------------|----|--------------|------|------|-------------|----------------|--------------|
| | | | | | | | | 0. | 01-5508 | 1 | 280 | cer ya | ACUM GOGI-TG | 8/025-4-90 |
| ľ | Ι | REVISION | | | RIVET CODE SHALL | L BE PER NAS 623 | OTY, REQUIRED | | PARTNO. | ITEM | OE | SCRIPTION - | MATERIAL | SPEC_/VENDOR |
| | | , DRAVIN : APPROVED | THIS DRAWING IS PENATE AND CONFIDENTIAL AS P IS NOT TO ME USED FOR ANY PURPOSE OR CO WITHOUT THE PERMISSION OF DART AS RO. | NO IS SUPPLIED ON THE EXPRESS CONDITION THAT PIED ON COMMUNICATED TO MAY OTHER PERSON | BASIC CODE | DIA DASH NO NºHEAD HEAR SEDE FWHEAD FAR SIDE | APPROVAL | | CONTRACT HQ. | | DATE | DAR' | T AERO ACCESSO | RIES INC |
| | | DESCRIPTION | GENERAL | | | | | | 85 Der Ex | | | CTENE. | | |
| | | OF CHANGE | T. DIMERSIONS ARE IN INCHES 2. SURFICE BOUGHIESS TITL 3. REMOVE SHAIP EDGES 015 MAX. 4. THREADS PER AND 10387 8. HOLES PER AND 10387 | 1. YOLFMANCES ICK 8.030 2002 1.010 2. ANGLES 1 W 8. PARALLEUSM 1.0025 8. ECCENTRICITY 2006 MAX. | BASIC BANKSTOLFOLD BB-MS20428AO | CODES | | | suera . | + | | me | SPACER | > < |
| - parameter special | | | | ALL M/C CENTINE ENTES DOS | | | | | CHECKED | | | CODE | PMS NO 7 7 7 | |
| | !_ | | REPORT | ALL DISCREPANCIES - DO NO | OT SCALE | | | | | | | | THE TOTAL WAR | COFT |

N2022